

AMENDMENTS
In the Claims

Current Status of Claims

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123.(currently amended) A cross-laminate comprising:

a first coextruded film A having a film A main direction of uniaxial or unbalanced biaxial molecular orientation and including:

a continuous main layer comprising a first polymer material selected to have a high tensile strength,

a continuous bonding layer comprising a second polymer material and disposed on a first surface of the main layer, and

~~a plurality of arrays~~ an array of substantially parallel film A first strands coextruded on a top surface of the bonding layer in a spaced apart configuration, and comprising a third polymer material different from the first and second polymer materials, where a separation between adjacent ~~arrays~~ strands of film A ~~first strands is~~ array is between 2mm and 8 cm measured from a middle of one ~~array~~ strand to a middle of an adjacent ~~array~~ strand,

a second coextruded film B having a film B main direction of uniaxial or unbalanced biaxial molecular orientation and including:

a continuous main layer comprising a fourth polymer material selected to have a high tensile strength,

a continuous bonding layer comprising a fifth polymer material and disposed on a first surface of the main layer, and

~~a plurality of arrays~~ an array of substantially parallel film B first strands coextruded on a top surface of the bonding layer in a spaced apart configuration, and comprising a sixth polymer material different from the fourth and fifth polymer materials, where a separation between adjacent ~~arrays~~ strands of film B ~~first strands~~ array is between

2 mm and 8 cm measured from a middle of one array strand to a middle of an adjacent array strand,
where the film A and the film B are arranged such that the first surface of the film A faces the first surface of the film B and their bonding layers and arrays of strands on the first surfaces face each other and such that the film B main direction crosses the film A main direction and the arrays of the film B first strands cross the arrays of the film A first strands, a first bonding pattern formed between the first surface of the film A and the first surface of the film B comprising:
first bonds comprising spot-bonds formed directly between the film A first strands and the film B first strands, where the film A first strands intersect the film B first strands, second bonds comprising contact lines between the film A bonding layer and the film B first strands or the film B bonding layer and the film A first strands, and third bonds comprising contact regions between the film A bonding layer and the film B bonding layer, where the regions are devoid of the film A first strands and the film B first strands,
where the first bonds have a higher bond strength than a bond strength of the third bonds, and
where the strands have a thickness of no more than 30% of a thickness of their respective films at their thickest.

124.(currently amended) The cross-laminate according to claim 123, further comprising:
an exterior layer formed on an exterior surface of at least the film B comprising an exterior layer polymer material ~~adapted to~~ enhances a surface property of the laminate, where the property is selected from the group consisting of its heat-sealing capability and its frictional property.

125.(previously presented) The cross-laminate according to claim 123, wherein the second bonds have a bond strength greater than the bond strength of the third bonds.

126.(canceled)
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128.(previously presented) The cross-laminate according to claim 123, wherein a collective area of the film A first strands and the film B first strands comprises no more than 60% of a surface area of their respective film sides.

129.(previously presented) The cross-laminate according to claim 123, wherein a thickness increase of the films A and B at their respective strand locations is at most 20% of a film thickness of the films A and B in adjacent regions of the films A and B devoid of their respective strands.

1 130.(previously presented) The cross-laminate according to claim 123, wherein a thickness
2 increase of the films A and B at their respective strand locations is at most 10% of a film thickness
3 of the films A and B in adjacent regions of the films A and B devoid of their respective strands.

1 131.(previously presented) The cross-laminate according to claim 123, wherein a volume of the
2 film A strands and the film B strands is not greater than 15% of a volume of their respective films.

1 132.(previously presented) The cross-laminate according to claim 123, wherein a volume of the
2 film A strands and the film B strands is not greater than 10% of a volume of their respective films.

1 133.(previously presented) The cross-laminate according to claim 123, wherein a volume of the
2 film A strands and the film B strands is not greater than 5% of a volume of their respective films.

1 134.(previously presented) The cross-laminate according to claim 123, wherein the separation is
2 between 2 mm and 40 mm.

1 135.(previously presented) The cross-laminate according to claim 123, wherein the separation is
2 at the highest 20 mm.

1 136.(previously presented) The cross-laminate according to claim 123, wherein:
2 the bond strength of the first bonds is at least 40 g cm⁻¹, as measured by a peel test carried
3 out on narrow specimens of the cross-laminate at a velocity of about 1 mm sec⁻¹, and
4 the bond strength of the third bonds are less than or equal to 75% of the bond strength of the
5 first bonds, as measured by the peel test.

1 137.(previously presented) The cross-laminate according to claim 136, wherein the bond strength
2 of the third bonds are less than or equal to 50% of the bond strength of the first bonds, as measured
3 by the peel test.

1 138.(previously presented) The cross-laminate according to claim 123, wherein an average
2 melting point of the third polymer material and average melting point of the sixth polymer materials
3 are at least about 10°C lower than an average melting point of the first polymer material and an
4 average melting point of the fourth polymer material.

1 139.(previously presented) The cross-laminate according to claim 123, wherein an average

melting point of the third polymer material and average melting point of the sixth polymer materials are at least about 15°C lower than an average melting point of the first polymer material and an average melting point of the fourth polymer material.

140.(previously presented) The cross-laminate according to claim 123, wherein an average melting point of the third polymer material and average melting point of the sixth polymer materials are at least about 20°C lower than an average melting point of the first polymer material and an average melting point of the fourth polymer material.

141.(previously presented) The cross-laminate according to claim 123, wherein the main layer of each of the two films A and B consists essentially of polyethylene or polypropylene.

142.(previously presented) The cross-laminate according to claim 123, wherein:
the main layers are selected from the group consisting of HDPE, LLDPE or a blend of the two, and
the bonding layers comprise LLDPE in admixture with 5 - 25% of a copolymer of ethylene having a melting point or a melting range within the temperature range of 50 - 80°C.

143.(currently amended) The cross-laminate according to claim 123, wherein the bonding layers include an adhesion modifying material ~~adapted to that~~ establishes a blocking of the contacting mutually facing surfaces of the films A and B to each other in regions devoid the their strands.

144.(currently amended) The cross-laminate according to claim 123, wherein:
at least one of the films A and B ~~further including a plurality of~~ includes at least one further array of substantially parallel second strands,
where the second strands comprise a polymer material differing in composition, color and/or appearance from the first strands and
where the arrays of first and second strands on the film A or film B are interspersed.

145.(previously presented) The cross-laminate according to claim 123, wherein the polymer material of the strands of at least one of the films A and B includes a colored material that makes the colored strands visible through at least one side of the cross-laminate.

146.(previously presented) The cross-laminate according to claim 145, wherein the cross-laminate has a thickness at its highest of about 0.3 mm, and:
wherein an exterior surface of the film A is corrugated to form a visible pattern of striations

extending in one direction,

where a spacing of the striations being at most about 3 mm,

the main layer and the bonding layer of the film A are substantially transparent to enable the colored strands to be visible when the laminate is observed from one of the exterior surfaces of the cross-laminate, and

a depth of the corrugations is sufficient to impart a three-dimensional effect to the cross-laminate such that the strands appear to be spaced internally from the exterior surface of the film A a distance substantially greater than an actual maximum thickness of the film A.

147.(currently amended) The cross-laminate according to claim 123, wherein the film A further includes:

a second continuous bonding layer comprising an seventh polymer material and disposed on a second surface of the main layer, and

a plurality of arrays an array of substantially parallel film A third strands coextruded on a top surface of the second bonding layer in a spaced apart configuration and comprising an eighth polymer material different from the first polymer material and seventh polymer material, and

the cross-laminate further comprising:

a third film C having a main direction of uniaxial or unbalanced biaxial molecular orientation and including:

a continuous main layer comprising a ninth polymer material having a high tensile strength.

a continuous bonding layer comprising a tenth polymer material and disposed on a first surface of the main layer, and

a plurality of arrays an array of substantially parallel film C first strands disposed on a top surface of the bonding layer in a spaced apart configuration and comprising an eleventh polymer material different from the ninth and tenth polymer materials,

where the film A and the film C are arranged such that the second surface of the film A faces the first surface of the film C and the second bonding layers of the film A and the bonding layer of film C and the arrays of third strands of the film A and the arrays of strands of the film C face each other and such that the film C main direction crosses the film A main direction and the film C first strands cross the film A third stands,

a second bonding pattern formed between the second surface of the film A and first surface of the film C comprising:

fourth bonds comprising spot-bonds formed directly between the film A third strands

and the film C first strands, where the film A first strands intersect the film C first strands, fifth bonds comprising contact lines between the film A bonding layer and the film C first strands or the film C bonding layer and the film A third strands, and sixth bonds comprising contact regions between the film A bonding layer and the film C bonding layer, where the regions are devoid of the film A third strands and the film C first strands, where the fourth bonds have a higher bond strength than the sixth bonds.

148. **(currently amended)** The cross-laminate according to claim 147, further comprising:
an exterior layer formed on an exterior surface of at least the film B or the film C comprising
a polymer material ~~adapted to~~ that enhances a surface property of the laminate, where the property
is selected from the group consisting of its heat-sealing capability and its frictional property.

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